WE CLAIM:

1. A method of decoding M x N (symbols in which a first codeword of length N of a first set of K codewords has been spread by a second codeword of length M of a second set of L codewords, the first codeword identifying a first information and the second codeword identifying a second information, the method comprising:

for each set of M consecutive symbols, performing a first parallel code multiplying operation by multiplying the M symbols by each of the L codewords of the second code, thereby producing L first output symbols, each of the L output first output symbols being associated with one of the L codewords;

for each of at least one codewords of said set of L codewords:

for a set of N consecutive first output symbols associated with the codeword, performing a respective second parallel code multiplying operation by multiplying the set of N consecutive first output symbols by each of the K codewords of the second code to produce a set of K second output symbols, each second output symbol being associated with one of the K codewords and with said codeword of set of said L codewords;

determining an overall maximum of the second output symbols output of said second parallel code multiplying operations.

2. A method according to claim 1 wherein the first code is a Walsh code, and the second parallel code multiplying operation comprises a FHT (Fast Hadamard Transform).

3. A method according to claim 1 wherein the first code is a truncated Walsh code, the method further comprising

padding each set of N consecutive output symbols to a power of 2, wherein the second parallel code multiplying operation comprises a FHT.

4. A method according to claim 1 wherein the second code is a Walsh code, and the first parallel code multiplying operation comprises a FHT.

5. A method according to claim 1 wherein the second code is an orthogonal code.

6. A method according to claim 3 wherein the second code is a Walsh code, and the first parallel code multiplying operation comprises a FHT.

7. A method according to claim 6 wherein M=8, N=12, L=8, K=16, the second code is an 8-Walsh code, and wherein the first code is a truncated Walsh code in the form of a (12,4) block code which is padded to length 16.

8. A method according to claim 2 wherein M=8, N=8, L=8, K=8 the first code is an 8-Walsh code, and the second code is an 8-Walsh code.

9. A method according to claim 1 further comprising:

performing sequence de-repetition prior to said first parallel code multiplying operation.

10. A method according to claim 1 further comprising:

determining the first information from the codeword of the first set of codewords associated with the overall maximum output and determining the second information from the codeword of the second set of codewords associated with the overall maximum output.

11. A method according to claim 7 further comprising:

determining the first information from the codeword of the first set of codewords associated with the overall maximum output and determining the second information from the codeword of the second set of codewords associated with the overall maximum output;

wherein the first information comprises a channel quality indication, and wherein the second information comprises a sector identifier.

12. A method according to claim 8 further comprising:

determining the first information from the codeword of the first set of codewords associated with the overall maximum output and determining the second information from the codeword of the second set of codewords associated with the overall maximum output;

wherein the first information comprises a data rate control indication, and wherein the second information comprises a sector identifier.

13. A method according to claim 1 wherein said second parallel code multiplying operation is performed for at least 2 of the L codewords.

14. A method according to claim 1 wherein said second parallel code multiplying operation is performed for all of the L codewords.

15. A method according to claim 1 wherein said at least one codeword are fewer than all of the L codewords, and the at least one codeword is selected by accumulating energy after the first parallel code multiplying operation for each possible codeword after the first parallel code multiplying operation, and selecting the at least one codeword having greatest energy.

16. An apparatus for decoding M x N (symbols in which a first codeword of length N of a first set of K codewords has been spread by a second codeword of length M of a second set of L codewords, the first codeword identifying a first information and the second codeword identifying a second information, the apparatus comprising:

a first parallel code multiplier which, for each set of M consecutive symbols, performs a first parallel code multiplying operation by multiplying the M symbols by each of the L codewords of the second code, thereby producing L first output symbols, each of the L output first output symbols being associated with one of the L codewords;

a second parallel code multiplier which, for each of at least one codewords of said set of L codewords, performs:

for a set of N consecutive first output symbols associated with the codeword, a respective second parallel code multiplying operation by multiplying the set of N consecutive first output symbols by each of the K codewords of the second code to produce a set of K second output symbols, each second output symbol being associated with one of the K codewords and with said codeword of set of said L codewords;

wherein an overall maximum of the second output symbols output of said second parallel code multiplying operations is selected.

17. An apparatus according to claim 16 wherein the first code is a Walsh code, and the second parallel code multiplying operation comprises a FHT (fast Hadamard transform).

18. An apparatus according to claim 16 wherein the first code is a truncated Walsh code, the apparatus being further

adapted to pad each set of N consecutive output symbols to a power of 2, wherein the second parallel code multiplier comprises a FHT.

19. An apparatus according to claim 16 wherein the second code is a Walsh code, and the first parallel code multiplier comprises a FHT.

20. An apparatus according to claim 16 wherein the second code is an orthogonal code.

21. An apparatus according to claim 18 wherein the second code is a Walsh code, and the first parallel code multiplier comprises a FHT.

22. An apparatus according to claim 21 wherein M=8, N=12, L=8, K=16, the second code is an 8-Walsh code, and wherein the first code is a truncated Walsh code in the form of a (12,4) block code which is padded to length 16.

23. An apparatus according to claim 17 wherein M=8, N=8, L=8, K=8 the first code is an 8-Walsh code, and the second code is an 8-Walsh code.

24. An apparatus according to claim 16 further comprising:

a sequence de-repetition function adapted to perform sequence de-repetition prior to said first parallel code multiplier.

25. An apparatus according to claim 16 wherein the first information comprises a channel quality indication, and wherein the second information comprises a sector identifier.

26. An apparatus according to claim 16 wherein the first information comprises a data rate control indication, and wherein the second information comprises a sector identifier.

27. An apparatus according to claim 16 wherein the second parallel code multiplying operation is performed for at least 2 of the L codewords.

28. An apparatus according to claim 16 wherein the second parallel code multiplying operation is performed for all of the L codewords.

29. An apparatus according to claim 16 wherein said at least one codeword are fewer than all of the L codewords, and the at least one codeword is selected by accumulating energy for each possible codeword after the first parallel code multiplying operation, and selecting the at least one codeword having greatest energy.